



Kansas Preservation

Newsletter of the Cultural Resources Division • Kansas State Historical Society



From porches and shade trees to big windows and high ceilings, today's architects are taking a second look at creative cooling methods used in historic homes.

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KANSAS PRESERVATION

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The Joseph Barbeau House in Lenora, which was built in 1902, is a rare western Kansas example of the Queen Anne style.

Review Board Meets

The Kansas Historic Sites Board of Review held its quarterly meeting on May 8, 2004, at the Kansas History Center in Topeka. On the agenda was the selection of Heritage Trust Fund grant recipients for 2004 (see page 3). The board also evaluated properties proposed for National Register and/or State Register nomination. The board approved a Multiple Property Submission for Kansas National Guard Armories, seven nominations for the National Register, and two nominations for the State Register.

The context statement for the National Guard armories addressed both the "pre-1951" armories and the "Nickell's armories" from the Cold War period. (A two-part adaptation of the context statement was printed in the May-June 2002 and the July-August 2002 issues of *Kansas Preservation*.) The two armories approved at this meeting are both from the "pre-1951" period. The Hiawatha Armory is a cast concrete structure erected in 1938 in the PWA Moderne style. The Kingman Armory is a brick structure built in 1937 in the PWA Moderne style. The context statement

and the nominations evolved from studies the Kansas National Guard undertook to meet its responsibilities under Section 106 of the National Historic Preservation Act.

The Hancock Street Historic District is a small residential district located north of the University of Kansas campus in Lawrence. The National Register nomination, which was paid for by the residents, recognizes the significance of the neighborhood for its association with KU (many of the homes were built for instructors at KU or occupied by instructors and students) and as an intact collection of early twentieth-century housing styles.

The Porter Hotel, 209 East Main, Beloit, was built in 1939 for local entrepreneur W. Earl Porter. Later converted to apartments, it was closed in 1998. Now under rehabilitation for senior housing, the hotel was nominated for its association with the growth and development of mid-twentieth century Beloit.

Located at 210 East Washington Avenue in Lenora, the Joseph Barbeau House is a rare example of the Queen Anne style in western Kansas. The 1902



The Hiawatha Armory is a cast concrete structure built in 1937 in the PWA Moderne style.



The McFarlane-Wareham House in Manhattan is an excellent example of the vernacular version of Tudor Revival.

structure displays the spindle work friezes, multiple roof planes, belt of fish scale shingles, corbeled chimneys, and turret that mark it as an excellent example of the Queen Anne style.

The McFarlane-Wareham House, located at 1906 Leavenworth in Manhattan, is an excellent example of the vernacular version of Tudor Revival popular at the time of its construction in 1928.

The Dr. Charles E. Bowers House at 1004 North Market in Wichita was built in 1906. The two-story brick American Foursquare was nominated for its architectural significance as well as for its

association with Dr. Bowers, who pioneered the use of the x-ray in Wichita.

Two properties were approved for the State Register only: the Harper Fountain, located at the intersection of Main and Central in Harper, and the Mary Seaman Ennis House, located at 202 West 13th Street in Goodland.

Originally a drinking fountain with a light fixture, the Harper Fountain was erected in 1909 at the center of the Main and Central intersection. The light fixture was destroyed when the fountain was hit by an automobile. The fountain was later converted to a traffic signal and then

- Hiawatha Armory
Hiawatha
- Kingman Armory
Kingman
- Hancock Street Historic District
Lawrence
- The Porter Hotel
Beloit
- Joseph Barbeau House
Lenora
- McFarlane-Wareham House
Manhattan
- Dr. Charles E. Bowers House
Wichita
- Harper Fountain
Harper
- Mary Seaman Ennis House
Goodland

removed in 1969. In 1983 it was repaired to resemble its earlier appearance and returned to the Main and Central location, although it no longer functioned as a drinking fountain.

The Ennis House is a Queen Anne structure constructed in 1906 by prominent Goodland builder Fred Hunt. The property is now owned by the Sherman County Historical Society, which hopes to restore many of the missing exterior architectural elements.

The next meeting of the Kansas Historic Sites Board of Review is August 21 in Topeka.

HTF Grants Approved for 2004

On May 8, 2004, the Kansas Historic Sites Board of Review made its recommendations for the 2004 round of Heritage Trust Fund (HTF) grants. The Board recommended \$1,267,322 for nineteen projects across the state. In this round the program received fifty-four eligible applications, requesting a total of \$3,358,557.

As is usually the case, a large number of applications focused on roofing, repair of historic wood windows, building stabilization, and mortar repair. The old Bonner Springs High School in Bonner Springs, Wyandotte County, will benefit from a grant of \$69,200 for installation of historically correct windows of the style originally designed for the building. Improper window replacement has allowed water to penetrate and deteriorate window frames.

Another window project will be funded at the Leavenworth County Courthouse in Leavenworth. A \$90,000 grant will help finance the removal of twenty-four aluminum windows on the main level and provide replacements that will restore the windows to their original character-defining appearance. As part of a larger renovation project, the upper floor windows were beautifully restored in 2003.

Also funded in 2004 is a pair of projects requesting funds for new and repaired roofs. St. Patrick's Catholic Church near Atchison was granted \$85,440 to repair the church roof and steeple. This includes removing all existing shingle layers, reinforcing split rafters, and stabilizing the chimney and steeple. While benefitting from a new roof, St. Patrick's Church will continue to host heritage events commemorating early Atchison County settlers. The applicants for Topeka Fire Station #2 in Shawnee County propose to use a \$90,000 grant for repair of the hip roof and upper flat roof. They will replace existing shingles with clay tile shingles, thus restoring the building's original roofing style and material.

The plans for the Carry Nation House in Medicine Lodge, Barber County, include masonry work on various sections of the exterior walls, replacement of brick, and repointing as necessary. The back porch wood shingles will be repaired, and the work plan for the \$20,800



The old Bonner Springs High School will receive a Heritage Trust Fund grant to help replace twenty-four aluminum windows with windows that have the same appearance and configuration as the original windows.



The historic Hendry House in Lawrence will utilize Heritage Trust Fund assistance for structural work and exterior repairs.

grant also includes exterior painting. This popular National Historic Landmark will continue to serve as a tourist stop while contributing to the economy of the area.

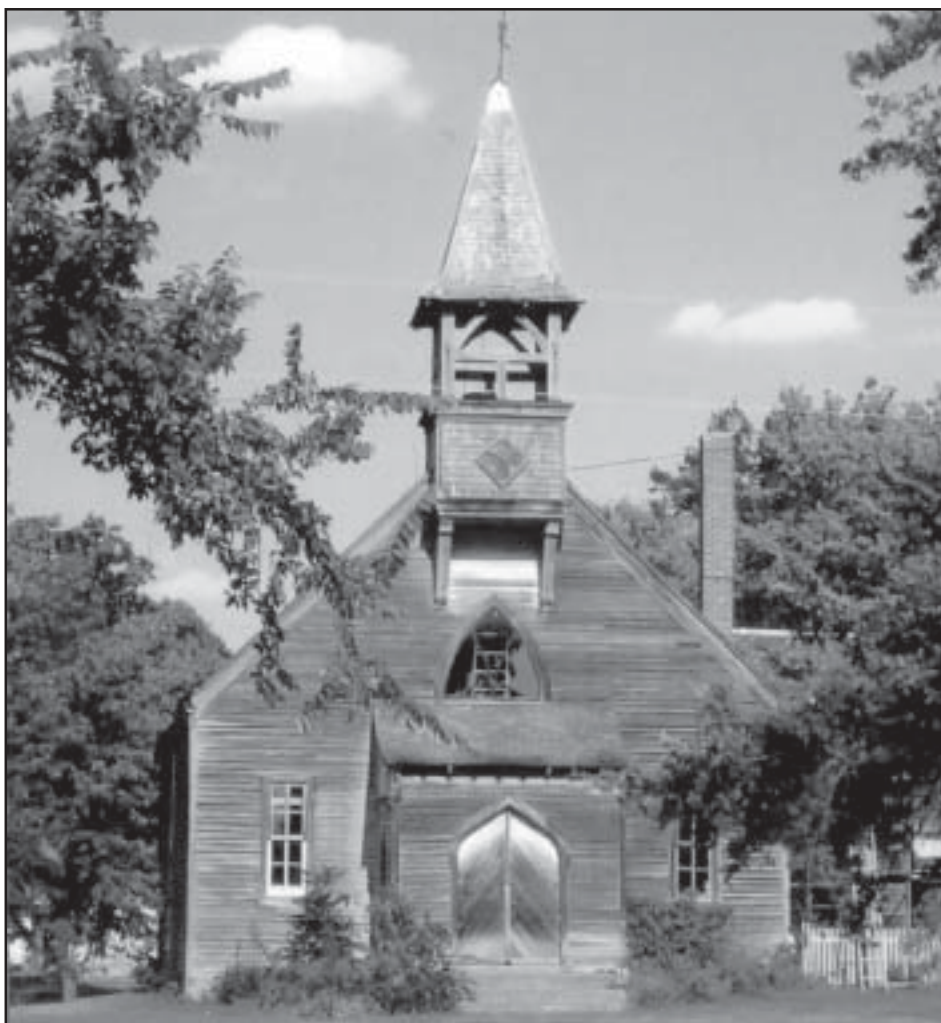
An award of \$90,000 to the owners of Prospect Park Farm near Chapman in Dickinson County will be used to repair and repoint the foundation of the west stone barn. Inappropriate roofing materials will be replaced with wood shingles for both the west and east stone barns.

The Finney County Preservation Alliance will use an award of \$82,944 for repair of the skylights over the atrium and the installation of sheet metal flashing to cover exposed parapet walls on the Windsor Hotel in Garden City. Leaking

roof areas will be patched and approximately 25 percent of the masonry exterior of the structure will be repaired. The sealing of the exterior envelope is the first step in preparing the building for its eventual return as a hotel and eating establishment worthy of its title "Waldorf of the Prairies."

Two other projects that include masonry work are the Mitchell County Courthouse in Beloit and the Jenkins Building in White City, Morris County. A grant of \$72,120 for the Mitchell County Courthouse will address removal of loose, deteriorated limestone around the four entrances to the building. Repair of the limestone will be accomplished with

*This article was prepared by
Teresa Kiss, grants manager in the
Cultural Resources Division.*



A Heritage Trust Fund project at the old Vinland Presbyterian Church will address structural issues, repair and replace siding, and install a new roof.

historically appropriate mortar. Landings and stairs will also be repaired. The owner of the Jenkins Building will utilize a grant of \$33,600 for repairing coping stones, cutting out and cleaning joints, and repointing as needed.

Funding of \$33,280 for the Marion Township Hall in Baileyville will provide for foundation preservation. The project also includes repair and restoration of twelve windows. The Marion Township Hall will be the location of a Tourist Information Center and Glacial Hills Topographical and Soil Information Learning Center and Resource Library.

The \$90,000 grant awarded for the preservation of the Pottawatomie County Fair Pavilion near Onaga will be used to stabilize the octagonal portion of the building and shore up the roof trusses. The proposed use of the building includes a cultural and educational center as well as a home for community events.

In Douglas County, the old Vinland Presbyterian Church in Vinland will receive a grant of \$80,640 for relaying and

repointing foundation stones. Siding will be restored and a new roof installed.

The white frame building known as Pleasant Valley School District #2 near Wellsville in Franklin County was awarded \$43,200. The scope of work includes removal of existing layers of shingles and shingle replacement as well as window repairs.

Harvey County's Fischer Field Stadium in Newton will receive \$84,400 for repairing exterior concrete surfaces, removal of inappropriate concrete block infill, and window repairs.

An \$89,120 grant for the Hendry House in Lawrence's North Rhode Island Historic District will fund foundation stabilization, repointing, siding repair, window trim restoration, repair of floor joists, and replacement of the roof and guttering. The Hendry House is one of the few original wooden structures to have survived Quantrill's raid.

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Old Bonner Springs High School
Bonner Springs

Leavenworth County Courthouse
Leavenworth

St. Patrick's Catholic Church
Atchison

Carry Nation House
Medicine Lodge

Prospect Park Farm
Chapman

Windsor Hotel
Garden City

Mitchell County Courthouse
Beloit

Jenkins Building
White City

Marion Township Hall
Baileyville

Pottawatomie County Fair Pavilion
Onaga

Vinland Presbyterian Church
Vinland

Pleasant Valley School District #2
Wellsville

Fischer Field Stadium
Newton

Hendry House
Lawrence

Old First National Bank Building
Dighton

Junction City Opera House
Junction City

Carnegie Library Building
Dodge City

Union Pacific Railroad Depot
Concordia



Large porches, such as built on the Gilmore-Kent Farmhouse in Doniphan County, helped to shade doors and windows.



Air-conditioning *Recent Invention or Common Sense Design?*

Preservationists often measure the value of historic buildings by architectural or historical merit. Rarely do we explore the technologies these buildings incorporate. Grueling summer temperatures have long inspired creative cooling methods. Until recent decades, these solutions centered on innovative building design.

In the twentieth century, builders moved away from the design-based approach and toward the use of mechanical systems that employed ductwork and noisy fans to create an interior temperature approximately 20 degrees cooler than summer-month temperatures. As designers became more reliant on mechanical cooling systems during the twentieth century, the art of creative non-mechanical cooling techniques was lost, and buildings became more and more energy dependent. However, these rarely used creative techniques may hold the key to making contemporary buildings more energy efficient.



The thick walls of the sod house had an insulating value for the residents.

Before air conditioning, houses were cooled using the resources provided by the natural environment. The use of trees for shading and the careful placement of windows and doors in relation to cool winds gave a great advantage to builders who were familiar with and implemented these techniques.

In Kansas, where trees were scarce, settlers chose construction materials that would help keep them cool. Settlers built dugout homes, whose nearly impermeable soil insulation allowed them to stay cool

in the summer and warm in the winter. Sod homes are a later variation of the dugout, providing similar benefits. The two techniques were often combined to create hybrid homes that were insulated by native soil. Stone was another common building material that insulated structures, helping maintain cool nighttime temperatures throughout hot summer days.

With the development of balloon-framing techniques coupled with railroad expansion, the use of native materials in construction was no longer required. Settlers began using cheap lumber to quickly and affordably construct design elements, such as porches and outbuildings, to help keep their buildings cool. Large porches were used to shade windows and doors and, in the early twentieth century, sleeping porches provided a well-ventilated sleeping area.

The cooling powers of windows and



Shown above is a transom window in a second floor bedroom of the Wharton House in Manhattan.

In the early twentieth century, sleeping porches, such as this one on the Nathaniel Burt House in Leavenworth, provided well-ventilated sleeping areas.



porches were maximized through the use of tall ceilings, attics, and transom windows. Tall ceilings and attics provided space for hot air to escape main living areas. Floor vents carried the hot air from the ceilings of one floor to the next story, then on to the attic. Transom windows allowed hot air to escape interior rooms and flow through hallways. Knowledgeable builders used these techniques to create an effective, non-mechanical cross-ventilation system. Later the systems were enhanced with attic fans that drew warm air into the uninhabited space and forced it outside. Electrical devices such as attic fans were invented in the late nineteenth century

but were not available to the average homeowner until the early twentieth century. Although air conditioning was invented in 1902, it was not common in homes until the mid-twentieth century. By the last decades of the twentieth century, cooling had become an afterthought, achieved by installing a mechanical device, without being given any thought in the initial building design.

As Americans became dependent on air conditioning, non-mechanical means for cooling were lost. Buildings became so devoid of natural ventilation that they made people sick, leading to the term

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Milestones in Coolness*

2000 BC

Egyptians hang damp mats in the doorways of their homes as an early form of "swamp coolers."

1500s

Mechanical fans are invented.

1800s

Fans and water-based "cooling towers" appear in New England textile mills.

1851

John Gorrie, a Florida doctor, invents an ice-making machine to cool his patients.

1882

Electric table fans and electric ceiling fans are invented.

1902

Willis Haviland Carrier invents air conditioning and puts the first unit in a Brooklyn printing plant.

1914

Carrier installs air conditioning in the first home, a mansion in Minneapolis. Cost: \$10,000.

1917

A Chicago movie theater is air conditioned.

1926

The United States Capitol chambers are air conditioned.

1930

Railroad diner cars on the Washington-New York route are air conditioned.

1931

The coolant Freon is created. It allows for smaller air-conditioning units.

1939

"Swamp Cooler" machines that use water and fans for cooling are mass-marketed.

1940

Packard is the first car with "factory air" as an option.

1951

Inexpensive air-conditioning window units are introduced.

Today

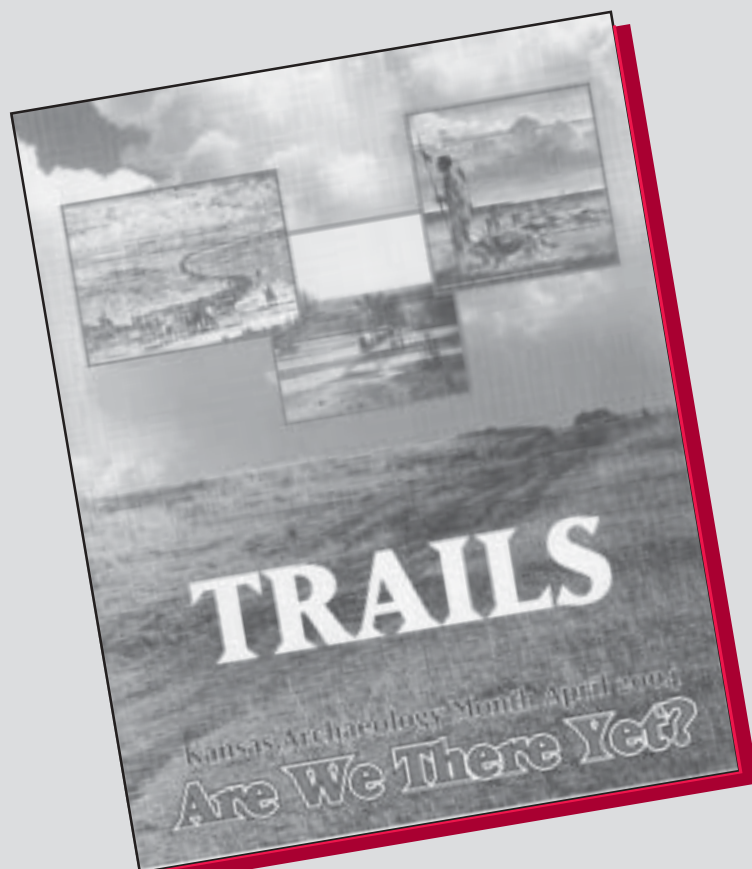
Almost half of US homes have central air conditioning. Eight of ten cars have it, too.

*A Cool History, *The Christian Science Monitor*, 6 August 2002, pp 18-19.

Kansas



Governor Kathleen Sebelius signed a proclamation on April 5 designating April 2004 as Kansas Archaeology Month to increase public awareness of Kansas archeology and to promote the protection, preservation, and scientific investigation of archeological resources in the state. Representatives of a number of the sponsoring organizations participated in the ceremony. Standing behind Governor Sebelius are Dr. Robert Hoard, state archeologist; Will Banks, SHPO archeologist; Dr. Margaret Wood, Washburn University; Dr. Mary Adair, University of Kansas Museum of Anthropology; Sharon Sage, Kansas Anthropological Association; Marsha King, Kansas Department of Transportation archeologist; Virginia Wulfkuhle, KSHS public archeologist; Michael Irvin, graphic designer, University of Kansas; Dr. Brad Logan, Kansas State University and president of Professional Archaeologists of Kansas.



The KAA Annual Meeting was held April 17 in Hanover, Kansas, where participants were able to enjoy tours of the Hollenberg Station State Historic Site. Talks and displays were on trail-related topics, in keeping with the Kansas Archaeology Month theme, and members of the Oregon-California Trails Association were invited to attend. Presentations included "History of Hollenberg Station and the Pony Express" by Duane Durst, "Historical Archeological Perspective on Kansas Trails" by Marsha King, "Soil Signatures of the Santa Fe Trail in Douglas County and Morton County" by Abby Varner, "Mussel Shells and Human Faces: Investigation of the Upper Component of the Claussen Site" by Donna Roper, "Witching for Failure: Looking for Graves on the Oregon Trail" by Randy Thies, "Dover Trail Blazing" by Debra Stufflebean, and "2004 Kansas Archeology Training Program Field School Preview" by Virginia Wulfkuhle.

The business meeting included the election of officers for the 2004-2006 biennium: president, Vita Tucker; first vice-president, Sharon Sage; second vice-president, Marsha King; secretary, Virginia Rexroad; treasurer, Rose Marie Wallen; historian, Mary Conrad; librarian, Don Rowilson; editor, Virginia Wulfkuhle. Important announcements included the formation of a new KAA chapter in the Colby area and the establishment of the Harold Reed KAA Publications Fund, endowed by the Reed family of Salina, to assist in timely publication of KAA field investigations.

Images of Archaeology Month



The Kansas Anthropological Association awarded its first-ever Lifetime Achievement Award to Milton Reichart of Valley Falls. The award recognizes individuals who have demonstrated long-term dedication to the KAA organization and to the advancement of archeology. KAA President Vita Tucker of Burlingame and Jim Huss of Atchison present the award to Reichart. The stained-glass panel of a prairie turnip was made by Rose Marie Wallen of Lindsborg.

Reichart, a native of Jefferson County, Kansas, joined the KAA in 1963. He is a KAA life member and was a charter member of both the Shawnee and Kanza chapters, which jointly submitted his award nomination. He attended every Kansas Archeology Training Program field school through 2001 and contributed to Kansas archeology through site survey, excavation, ethnohistoric research, ethnobotanical experiments, and public speaking. He published much of his work in the *KAA Newsletter*, *Journal of the KAA*, and *The Kansas Anthropologist* and presented papers at meetings of the KAA and the Flint Hills Conference. From the early 1960s through the early 1990s, Reichart served as a principal informant to professional archeologists and was a field worker on surveys of Perry Lake and Cedar Creek and on investigations in several large highway corridor projects. In addition to archeology, Reichart's interests extend to writing poetry, studying history (including research on eighteenth-century French explorer Bourgmond), photography, carpentry, orchard husbandry, and studying edible wild plants (including field studies and experiments with the prairie turnip).

Information posted on the Professional Archaeologists of Kansas website at www.ksarcheo.info includes six news releases, a trails lesson plan for grades six and eight that meets various Kansas Board of Education standards, an annotated trail bibliography for teachers and students, links to trail-related web sites, plus an exhibit on archeological research on Kansas trails.



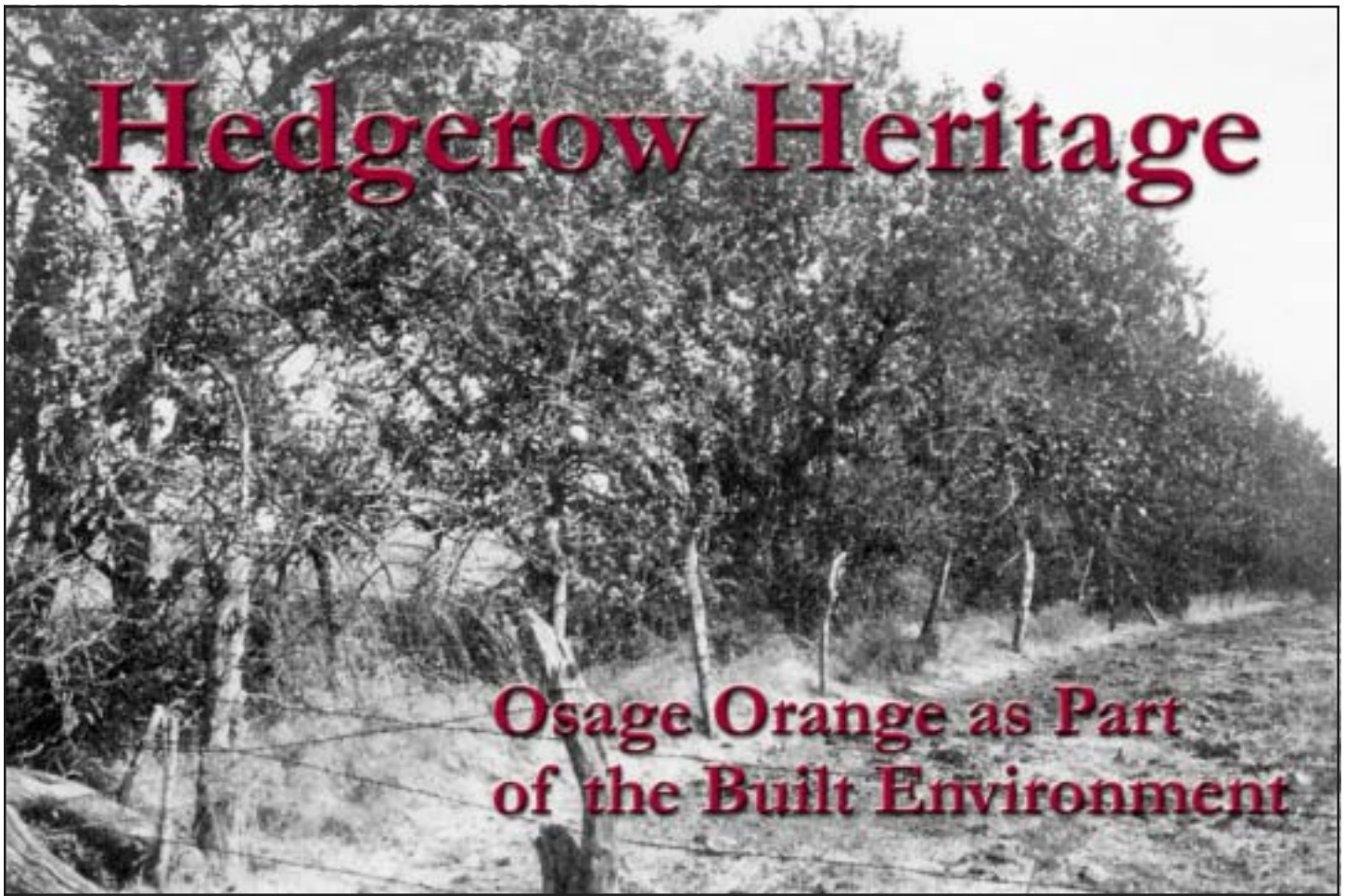
The KSHS hosted an Artifact Identification and Archeology Lab Tour Day on April 10. In addition to Topeka-area collectors, people came from Eskridge, Manhattan, Nortonville, Wakarusa, and Independence, Missouri. (Photo by Bob Hoard.)



KAA volunteers demonstrated archeology lab techniques and procedures. Vita Tucker of Burlingame and Lab Supervisor Chris Garst (upper left) answer questions about pottery reconstruction, while Jim Huss of Atchison instructs a young visitor in washing (lower right). (Photo by Bob Hoard.)



Youngsters and their leaders at the KSHS History and Environment Fair on April 22 enjoyed the trails display case in the Center for Historical Research, featured on back cover of the March-April 2004 issue of Kansas Preservation. (Photo by Craig Cooper.)



This view of a Chase County fence shows a relict hedgerow and clear record of succession. Ironically, after barbed wire succeeded hedge as the leading type of fence in the late nineteenth century, the latter came to be recognized as the premier post for the attachment of barbed wire.

Wood or timber was a precious commodity in the prairie/plains region for the nineteenth-century settler and homesteader in Kansas. It was necessary for shelter, fuel, and—before barbed wire—fence building. Fences were needed to confine livestock and to protect crops and gardens. This article focuses on wood as a resource necessary for enclosure purposes, specifically hedge. For brevity, the term “hedge” will be utilized in place of Osage orange.

*This common name, Osage orange, is one of many for this species, the Latin name for which is *Maclura pomifera*. Those who have had the good fortune, or misfortune, of harvesting it for firewood or fence posts probably have also used a number of expletives not proper to print because of its characteristic abundance of thorns. “Osage” refers to the Indian tribe that lived in the region where hedge was indigenous. “Orange” describes the shape and texture of the leaf, as well as the fruit, which resembles the edible orange.*

“Hedge” refers to the form the species can take in the landscape if manipulated by pruning, weaving, and trimming.

Once planted to serve as farm fences, hedgerows of Osage orange—or hedge apple—attract little attention today. However, they stand as a living example of functional landscape, and their significance in the development of Kansas cannot be denied.

It has only been in recent years that preservationists have studied the built environment in its totality; structures have received the bulk of scholarly attention while landscapes were virtually ignored. Unlike architectural elements, which may remain consistent over the decades, a landscape of planted trees is a modified ecosystem where controlled and uncontrolled succession constantly takes place; it is not static.

Today most Kansans think of hedges as urban aesthetic features; however, in early-day rural Kansas, they had very specific, functional purposes. When nurtured and properly maintained, Osage orange fences could easily pass the nineteenth-century test of a good fence: it had to be “horse-high, hog-tight, and bull-strong.” Horses could not jump the

hedge at the normal height of four to five feet, hogs with their cantankerous behavior could not penetrate the woven stems, and even a prize bull had great difficulty making passage through a mass of thorns.

The Osage orange species of tree became dominant in nineteenth-century rural Kansas, but was largely rejected by the following generation. Introduced in the mid-nineteenth century, the Osage orange became one of the most planted tree species by the turn of the twentieth century. While it is much diminished today, its remnants remain as part of our rural landscape heritage.

Before the advent of barbed wire in the late 1870s, hedge fences reigned supreme in Kansas. Of all the pioneer fences, which included post and rail, worm (or Virginia rail), stone, sod, and even tree roots, hedge was the most popular. Even after barbed wire became the leading fence type, and well into the twentieth century, hedge was planted in great numbers strictly for enclosure purposes. In 1939, the U.S. Department of

Agriculture, utilizing Kansas State Board of Agriculture reports, determined that approximately 39,400 miles of hedge fence graced the Kansas landscape. Hedge best defined and dominated the spatial relationships of rural Kansas.

A Valuable Commodity, Hedge Use Spreads

Hedge is not an indigenous species to Kansas but is to the Red River region of Texas, Oklahoma, Louisiana, and Arkansas. The Lewis and Clark Expedition found hedge growing in the St. Louis area and learned of its great value to Native Americans for the construction of bows and other tools. Of unsurpassed resiliency compared to other hardwoods, it was a valuable trade item among the various Indian tribes of the plains region. It is documented that a bow made from hedge was worth a horse and a blanket. By the 1840s, it had been introduced into the state of Illinois from the Red River region for use as fencing. From Illinois, it spread to other Midwestern states and was advertised for sale in a Lawrence newspaper as early as 1856. Hedge fences were first planted in Kansas during the Territorial Period, and use accelerated rapidly after the Civil War.

After the first and second waves of the original Kansas settlers, wood for building purposes became a scarce resource. This problem was not isolated to Kansas but affected the entire Midwest. Research on fences by the federal government highlighted the necessity for substitute material for wood in the plains region and determined that the cost of building perimeter and interior fences on any given farm in the Midwest was of greater value than the combined costs of the land, livestock, and other improvements. The study concluded that settlement and westward expansion was being thwarted by the lack of adequate fencing materials. Hedge fencing helped solve this problem.

To provide an incentive for settlers to plant hedge for fencing—which takes three to five years to mature under the best conditions—the Kansas Legislature

passed a law in 1867 to pay financially strapped farmers \$2 for every 40 rods (or \$128 for every mile) of hedge that they planted. Even though this law was abolished in the late 1870s, many farmers took advantage of the opportunity and planted hedge with abandon. One regional newspaper called the hedge-planting craze “hedge mania,” and the leading Kansas farm newspaper, the *Kansas Farmer*, advocated the creation of an association of “hedgers” for regulating the tree’s use along public roadways.

The fruit of the Osage orange, or hedge apples, were in great demand. One mature apple contains approximately 800 seeds, and 30 to 40 apples make a bushel. The demand for hedge for fence planting in the Midwest became so intense that



Not all Osage orange was planted in the nineteenth century or in eastern Kansas. This one-mile length of hedge trees was planted in 1942 on the Earl Moss farm, located adjacent to US-24 close to the Sheridan/Thomas county line. Additional tree species planted in this row of trees includes mulberry. The author took this photo in winter 1999, acting on information about its location given to him by Don Rowlison of Studley.

hedge apples became a commodity purchased and sold on the Chicago Board of Trade. The frugal farmer could buy fruit and plant hedge trees from seed, and nurseries in eastern Kansas supplied many farmers with seedlings for transplanting. During the 1860s and 1870s, hedge seedlings were so popular that they made up the greatest volume in all Kansas nurseries. In April 1864, the Scott Farm in Jefferson County advertised 100,000 Osage orange plants for sale. Nurseries in Leavenworth and Douglas counties advertised 800,000 plants and 300 acres of plants, respectively. Other nurseries with huge supplies of hedge plants were located in Doniphan, Franklin, and Cherokee counties.

By 1882, hedge fencing had become

the most popular fence in Kansas, surpassing all other wood fencing in its various styles and designs. In that year, the state collectively counted approximately 48,000 miles of hedge in place and serving as fences. The leading county in hedge fence building was Johnson with other counties in southeast (Cherokee and Labette) and south-central (Sedgwick and Butler) also ranking high. Although barbed wire overtook hedge as a fencing material by 1886, hedge use peaked in 1895 with more than 72,000 miles reported.

Barbed Wire Brings End of Hedge’s Reign

Although barbed wire became cheaper to purchase and install and was much less labor intensive than maintaining a hedge fence, it was not readily accepted by some farmers. Livestock and horses not acclimated to the sharp barbs of barbed wire would tear their hides to such an extent that eastern leather processing markets would not accept the hides. Some farmers believed that lightning could electrocute cattle standing too close to barbed wire during thunderstorms. In spite of some negative editorials in farm and other prominent newspapers, barbed wire ultimately became the accepted type of fence, and it came to dominate the rural landscape for enclosure purposes, surpassing living hedge fence.

Ironically, after its demise as fencing, hedge became the first choice for fence posts for barbed wire fences because hedge was determined to be the most disease-resistant wood in North America. A story testifying to hedge’s durability circulated for several years: Two farmers were discussing the types of tree wood most suitable for fence posts. After some

Larry Rutter of Meriden, Kansas, retired after 20 years with the KSHS Historic Sites Division in 2001 and continues to conduct research and write about historic landscapes. He also provided the accompanying photos.

(Right) A bonafide twentieth-century hedgerow! This image from the Barnhardt farm in High Prairie Township in Leavenworth County was taken in August 2002. An early landowner named Dr. Boling originally planted Osage orange seedlings in the late 1860s. As late as the early 1920s, several miles of hedgerows surrounded this farm. Most were taken out in the 1930s with the advent of the automobile and the need for wider roads. This particular hedgerow leads to the old Boling farmstead and represents four generations of care and maintenance.



(Left) This row of hedge trees, also on the Barnhardt property, was planted during the same time period referenced in the preceding photo caption. It demonstrates a condition quite common today with this species in many areas of the state, a condition of maturation. In no way does it represent a manicured and cared for hedgerow that would have been found in nineteenth-century Kansas.

debate on the merits of different species, the older farmer made his point of favoring hedge by telling his young farmer friend that in his experience one hedge post would wear out two postholes! This author can testify to hedge post longevity as he remembers posts set in the 1940s that still stand intact today—a period of at least 60 years.

Today, we do not have many Osage orange hedges, but there are many former hedgerows that can be found as they were initially planted in the late nineteenth and early twentieth centuries. The death knell for many hedge fences sounded in the 1920s and 1930s with the advent of modern road and highway systems. Without question, farmers removed many hedges because they had become obsolete and modern farming practices of cropping from right-of-way to right-of-way allowed more ground to be farmed. However, a check of the old Kansas Highway Commission and local records tells us that many hedgerows were removed along roadways and township roads to make them wider, more

accessible, and safer for the motoring public. As barbed wire replaced hedge as a functional object, so the internal combustion engine further eliminated hedge for aesthetic reasons.

For earlier generations, hedgerows defined the rural landscape. Today only remnants of hedge fences remain as a part of our built environment. While some conservationists cite the use of this species as superb pioneering stewardship, some contemporary cattlemen have classified it as a “weed” that invades range and pastureland and should be completely eradicated. Those who study Osage orange, however, cannot refute its positive significance when managing property. Ongoing horticultural research on this much-maligned species as a cultivated variety for urban communities and corridor green space may well resurrect its once lofty popularity not seen since the late nineteenth century. In the meantime, students of historic landscapes recognize this species as a once “living” fence, or as evidence of our hedgerow heritage.

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Sternberg, Guy, and James W. Wilson. *Landscaping with Native Trees*. Shelburne, Vermont: Chapters Publishing, 1995.

Third Biennial Report (Kansas) State Board of Agriculture, 1881-1882.



The Heritage Trust Fund grant for the Marion Township Hall at Baileyville will be used for foundation repair and window repair.

HTF Grants Approved

Cont. from page 4

An award of \$58,400 for window renovation and door renovation will contribute to the restoration efforts on the Old First National Bank Building in Dighton, Lane County. The building has been used as a studio and art gallery since 1983.

An award of \$84,104 to the Junction City Opera House in Geary County, home of the Junction City Little Theater, will stabilize the roof framing by replacing or repairing deteriorated rafters. Damage to limestone will also be repaired and attention will be given to the stone pilaster cap and keystone on the clock tower.

Ford County's Dodge City Carnegie Library Building will utilize \$29,760 for masonry repairs for stone and brick

features. Eroded stones will be replaced and eroded joints will be tuck-pointed. The second entry riser and stair buttress walls will be repaired, as will some windows.

The Union Pacific Railroad Depot in Concordia, Cloud County, will receive \$50,586 for repair and replacement of stucco. Large cracks in the wall will be cleaned and new stucco applied. The project will also include window repair. The Union Pacific Railroad Depot has recently been selected as the national site for the Orphan Train Heritage Society of America, Inc. Museum and Research Center.

The annual application deadline for the Heritage Trust Fund is March 1. For more information contact the Kansas Historic Preservation Office, Kansas State Historical Society, 6425 S.W. Sixth Avenue, Topeka, Kansas 66615 or call (785) 272-8681 Ext. 216 or visit our website at www.kshs.org.

Keeping Cool

Cont. from page 6

"sick building syndrome," which was caused by inadequate ventilation trapping natural and manmade toxins within buildings. Even historic building owners forgot how to take full advantage of their tall ceilings, transom windows, and attic fans.

As scientists and green builders search for ways to improve energy efficiency in new buildings, they are reconsidering the advantages of natural ventilation and the use of high mass materials like earth, bales, and masonry. They even have a term for it: passive cooling. What is the source for information on these cutting edge designs? Historic buildings.

This article was prepared by Elizabeth Smith, currently a half-time employee of the Historic Preservation Office. Elizabeth has a B. Arch from Kansas State University and as this issue was being prepared, she was finishing the requirements for dual Master's degrees in Architecture and Planning.

For more information on passive cooling and green architecture, see the following web sites:

www.buildinggreen.com

www.brown.edu/Departments

Brown_Is_Green/greenarch

www.reddawn.com

www.epa.gov/iaq/pubs/sbs.html

Protecting the Trail and the Teeth



This bottle held Rubifoam for the Teeth, which was made by E. W. Hoyt and Company of Lowell, Massachusetts.

Whoever thought of oral hygiene in the old west? Certainly not I when I volunteered at the KSHS Archeology Lab in the Center for Historical Research in Topeka. The subject was introduced when Chris Garst, who oversees, processes, and protects a huge collection of artifacts from sites around the state, asked me to look through some boxes of material from Fort Hays. I did, and soon found several bottles used to hold tooth wash and some remnants of toothbrushes. These items that dated back some 125 years fascinated me, and I began to research the subject. But first, let's set the scene.

The Civil War had ended, and the West was calling. Large numbers of people began the trek toward new homesteads. The United States Government established forts along several trails to protect the settlers and the stage and express lines.

One such fort was set up in the area of Big Creek and the Smoky Hill River in 1865. At first it was called Fort Fletcher and was garrisoned by three companies of the First United States Volunteers. These were "Reconstituted Yankees," that is, Confederate prisoners of war who enlisted in the U.S. Army to serve on the frontier. On November 17, 1866, the installation was renamed Fort Hays. Shortly thereafter, in June 1867, the site was flooded out with loss of life and property. Consequently, it was moved to higher ground.

Marshall Clark is a volunteer in the Archeology Lab. He is a retiree who has always had a fascination with history and who is thankful that a lot of progress has been made in oral hygiene during the last one hundred or more years. He thanks his wife, Katrina Clark, for typing and editing this paper.

Photos by Craig Cooper.

In August 1889, General Order 69 was issued, ordering Fort Hays to be abandoned, along with Fort Laramie in Wyoming and Fort Lyon in Colorado. The land, consisting of 7,600 acres, was given to the State of Kansas to establish an agricultural experiment station and a western branch of the state normal school. This institution eventually became Fort Hays State University. The fort had existed from 1865 to 1889. A few of its buildings still stand and are part of Fort Hays State Historic Site.

"Brushing the teeth, though in vogue in foreign armies and approved by hygienists as a preventative of agues and diseases, was rare," states George W. Adams in his fascinating book, titled *Doctors in Blue*. Conditions at the fort were of no help. An 1870 Surgeon General's circular reported that, although there was an unlimited supply of water, after a rain, it was impregnated to a limited extent with lime and magnesium along with carbonic and sulfuric acids. Even worse, the fort's cemetery was located in a spot from which drainage went directly into the water supply.

Considering these conditions, we would hope that residents at the fort tended to their oral hygiene. In the January 1867 Fort Hays post council records, there is a description of the supplies carried by the post sutler, and that list includes toothbrushes.

Among the KSHS artifacts there is indeed evidence that some brushing was going on.

The archeological collection contains a number of toothbrush handle remnants. They are made from ivory, bone, or celluloid, and one is inscribed "Ivory Finish." Several include remains of the bristles.

Bottles in this collection represent at least three different brands of tooth cleaners. Back then, these preparations were called "tooth washes." One brand, "Rubifoam for the Teeth," was made by E. W. Hoyt and Company of Lowell, Massachusetts. Rubifoam cost twenty-five cents a bottle and was described as being "deliciously flavored." The company even put out a small publication promoting the prevention of tooth decay through the use of its product. It was much later, in 1901, that the idea that bacteria caused decay was accepted.

A second bottle was "Burnett's Oriental Tooth Wash," made in Boston,



(Top Left) This photo shows remnants of toothbrushes from the Fort Hays excavations. Note the fragment with some remaining bristles.

(Top Right) Van Buskirk's Fragrant Sozodont was made in New York City and promoted as "Good for bad teeth, not bad for good teeth."

(Right) These two bottles originally contained Burnett's Oriental Tooth Wash, which was made in Boston, Massachusetts.



Massachusetts. I wasn't able to locate much information on this product other than a label advertising the properties of "Cocaine, Kalliston, Florimel, Oriental Tooth Wash, asthma remedy and superior cooking extracts."

The third bottle is labeled "Van Buskirk's Fragrant Sozodont" from New York City. Its motto was "Good for bad teeth, not bad for good teeth." Sozodont's main ingredients included acids, astringents, and sharp abrasives. The major abrasive was diatomaceous earth. Diatoms are microscopic fossils of unicellular algae, found in both fresh and saltwater environments. They are essentially pure silica and survive after the death of the algae. Almost indestruc-

tible, they provide a tremendous abrasive medium. Today diatoms continue to be used in dentifrices and are employed in filtering and grinding tasks.

An early broadside promoting Sozodont made some astounding claims: "For cleansing and preserving the teeth, hardening the gums, imparting a delightfully refreshing taste and feeling to the mouth, removing tarter and scruf from the teeth, completely arresting the progress of decay and whitening such parts as have already become black by decay." But wait, there's more! The advertisement went on to say that along with "this power it combines an embalming and antiseptic property and a delicate fragrance" that should encourage man, woman, or

child to use Sozodont regularly. It was also recommended for use by invalids to rinse their mouths.

For those who were not quite as interested in daily oral hygiene, there were other aids. A book on Civil War artifacts refers to a small tin box labeled "Breath Fresheners." Certainly a soldier riding out to protect the trail felt much more confident with a sparkling smile and fresh breath.

Recommended Reading

Adams, George W. *Doctors in Blue*. Baton Rouge: Louisiana State University Press, 1985.

A Report on Barracks and Hospitals with the Descriptions of Military Posts, Circular No. 4, War Department, Surgeon General's Office, Washington, D.C., December 5, 1870.

Hygiene of the United States Army, Circular No. 8, War Department, Surgeon General's Office, Washington, D.C., 1875

2005 Historic Preservation Fund Workshops Announced

The Kansas Historic Preservation Office (KHPO) will host two workshops on the federal Historic Preservation Fund (HPF) grant program in August.

Each year the KHPO awards HPF grants to cities, counties, preservation organizations, and Certified Local Governments to help support local historic preservation activities. These competitive grants are used to fund historic property surveys, National Register nominations, preservation plans, design-review guidelines, and educational activities such as brochures, local conferences, and workshops.

An HPF grant must result in a completed, tangible product, and all activities must pertain to the preservation programs outlined in the National Historic Preservation Act of 1966, as amended. The grants can be used to fund up to 60 percent of project costs. The other 40 percent must be furnished by the project sponsor and can be provided through cash or in-kind services and materials.

The first workshop is at 9:30 a.m., August 3, 2004, at the Kansas Museum of History in Topeka. The second is August 5, 2004, at a location to be determined. Applications for the 2005 federal funds will be available at the end of July and may be obtained at the workshop or by calling (785) 272-8681 Ext. 233 to request that your name be placed on the HPF mailing list. Applications will be mailed as soon as they become available.

The deadline for preliminary applications is October 1, 2004. Preliminary applications, which are reviewed and analyzed by our staff, are not required but are highly encouraged. Final applications must be postmarked no later than November 15, 2004, or delivered in person to the KHPO at 6425 SW 6th Avenue, Topeka, by 4:30 p.m. on that date.

For more information on this program, please contact Teresa Kiss, grants manager, at (785) 272-8681 Ext. 216 or tkiss@ksks.org. Visit our website at www.ksks.org.

Happenings in Kansas

Willing to Die for Freedom: A Look Back at Kansas Territory

April 3, 2004 - October 3, 2004

Kansas Museum of History

6425 S.W. Sixth Avenue

Topeka, Kansas

This exhibit both observes the territory's 150th anniversary and explores Kansas' free-state heritage.

Sights Once Seen

June 1 - August 30, 2004

Kansas History Center Research Gallery

The earliest form of photography is featured in this traveling exhibit recreating explorer John C. Fremont's 1853-54 expedition through the West. Over 100 daguerreotypes were taken in modern times by photographer Robert Shlaer, who retraced Fremont's route through present-day Kansas and beyond.

Kansas Archeology Training Program Field School

June 5-20, 2004

Lindsborg, Kansas Vicinity

For information, contact the Cultural Resources Division at (785) 272-8681 Ext. 240.

Historic Preservation Fund Workshop

August 3, 2004

See article at left.

Historic Preservation Fund Workshop

August 5, 2004

See article at left.

Kansas Historic Sites Board of Review

August 21, 2004

9 a.m.

Kansas History Center Classrooms

Historic Preservation Fund Application Deadline

November 15, 2004

See article at left.

Heritage Trust Fund Application Deadline

March 1, 2005

See page 12.



Return Service Requested

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Cultural Resources Division

6425 S.W. Sixth Avenue

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